

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-15 in accordance with the following:

1. (Currently Amended) A computer-readable medium encoded with a program-used-to direct that when executed causes a computer to ~~use~~ perform a knowledge processing method ~~for use with~~ reference to a knowledge processing system formed by a product's hierarchical structure of knowledge its components information relating to a designed event based on a ~~class~~ product's development code name as a super class and a relationship between ~~classes~~ components as classes, comprising:

storing in a database the product's development code name as a super class having a name inclusively describing a component as a class of the knowledge component information, ~~the class component~~, and the relationship between the ~~classes~~ components; and

detecting a ~~class~~ component relating to the product's development code name as a super class stored in the database~~[[,]]~~;

generating a relationship between the ~~classes~~ components by an inference based on multivalued logic~~[[,]]~~; and

configuring ~~a knowledge~~ the product's hierarchical structure from information stored in the database and the relationship between the ~~classes~~ components obtained by the inference.

2. (Currently Amended) The program according to claim 1, wherein the relationship between the ~~classes~~ components includes a weight which weights a relationship between ~~classes~~ components obtained by the inference based on the multivalued logic and a hierarchical structure.

3. (Currently Amended) The program according to claim 1, wherein ~~in the inferring step~~ said generating, a new ~~class~~ component is generated when the new ~~class~~ component can be generated to associate ~~classes~~ components by the inference, and is associated with another ~~class~~ component so that ~~knowledge~~ the new component's information can be structured.

4. (Currently Amended) The program according to claim 1, wherein ~~in the inferring step~~ said generating, a temporal inference on a knowledge component's information structure described in a class component group is conducted and a relationship between ~~classes with a change with components changing over time of with~~ described knowledge component's information taken into account, is included in the knowledge component's information structure.

5. (Currently Amended) The program according to claim 1, wherein on a part of a user who uses the knowledge a component's information structure generated on a part of a designer, ~~a knowledge the component's information structure~~ designed on the part of the designer is restructured by an inference using multivalued logic according to information about ~~a super-class the product's development code name~~ describing the knowledge hierarchical structure and a class component's information group.

6. (Currently Amended) A knowledge processing method for use with an information knowledge processing system formed by a structure of knowledge information relating to a designed event based on a class component and a relationship between ~~classes~~ components, comprising:

storing in a database a product's development code name as a super class having a name inclusively describing a class component's information of the knowledge, the class component's information, and the relationship between the ~~classes~~ components' information; and

detecting a class component relating to the product's development code name as a super class stored in the database[[,]]; and

generating a relationship between the ~~classes~~ components by an inference based on multivalued logic[[,]]; and

configuring an information-knowledge structure from information stored in the database and the relationship between the ~~classes~~ components obtained by the inference.

7. (Currently Amended) The method according to claim 6, wherein the relationship between the ~~classes~~ components includes a weight which weights a relationship between classes components obtained by the inference based on the multivalued logic and a hierarchical components' information structure.

8. (Currently Amended) The method according to claim 6, wherein in-the-inferring-step said generating, a new-class component is generated when the new-class component can be generated to associate-classes components by the inference, and is associated with another class component so that-knowledge information can be structured.

9. (Currently Amended) The method according to claim 6, wherein in-the-inferring-step said generating, a temporal inference on a knowledge structure described in a-class component group is conducted and a relationship between classes-with-a-change-with components changing over time of-with described knowledge-component's information taken into account, is included in the-knowledge component's information structure.

10. (Currently Amended) The method according to claim 6, wherein on a part of a user who uses the-knowledge components' information structure generated on a part of a designer, a knowledge components information structure designed on the part of the designer is restructured by an inference using multivalued logic according to information about a super class describing the knowledge structure and a-class component group.

11. (Currently Amended) A-knowledge components information processing system formed by a hierarchical structure of-knowledge components information relating to a designed event based on a-class component and a relationship between-classes components, comprising:

a storage unit storing in a database product's development code name as a super class having a product's development code name inclusively describing a-class component of the knowledge component information, the class component, and the relationship between the classes components; and

an inference unit detecting a class relating to a super class stored in the database, generating a relationship between the-classes components by an inference based on multivalued logic, and configuring a knowledge structure from information stored in the database and the relationship between the-classes components obtained by the inference.

12. (Currently Amended) The system according to claim 11, wherein the relationship between the-classes components includes a weight which weights a relationship between classes components obtained by the inference based on the multivalued logic and a hierarchical structure.

13. (Currently Amended) The system according to claim 11, wherein in the inference unit, a new-class component is generated when the new-class component can be generated to associate-classes components by the inference, and is associated with another-class components so that knowledge the new component's information can be structured.

14. (Currently Amended) The system according to claim 11, wherein in the inference unit, a temporal inference on a knowledge component information structure described in a-class component group is conducted and a relationship between classes-with-a-change-with changing over time-of with described knowledge taken into account is included in the knowledge structure.

15. (Currently Amended) The system according to claim 11, wherein on a part of a user who uses the knowledge component information structure generated on a part of a designer, a knowledge component information structure designed on the part of the designer is restructured by an inference using multivalued logic according to information about the product's development code name as a super class describing the knowledge component information structure and a-class component group.